



COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

DEVAL L. PATRICK
Governor

TIMOTHY P. MURRAY
Lieutenant Governor

IAN A. BOWLES
Secretary

ARLEEN O'DONNELL
Commissioner

Response To Comments On:

**Proposed Regulations
310 CMR 7.32
Massachusetts Clean Air Interstate Rule
(Mass CAIR)**

and amendments to

**310 CMR 7.28
NO_x Allowance Trading Program**

**Regulatory Authority:
M.G.L. c. 111, Sections 142A through 142M**

April 2007

TABLE OF CONTENTS

| | | |
|-----|---|----|
| I. | SUMMARY | 3 |
| II. | COMMENTS AND RESPONSES | 4 |
| | A. Applicability | 4 |
| | B. Budget Size | 5 |
| | C. Allocation Approach | 6 |
| | D. Public Benefit Set-aside (PBSA)..... | 7 |
| | E. New Unit Set-Aside | 8 |
| | F. Penalty Provisions | 10 |
| | G. Monitoring and Recordkeeping..... | 10 |
| | H. Allocations | 13 |
| | I. Technical Corrections | 15 |

I. SUMMARY¹

In January of 2007, the Massachusetts Department of Environmental Protection (MassDEP) proposed the promulgation of 310 Code of Massachusetts Regulations (CMR) 7.32, *Massachusetts Clean Air Interstate Rule*, and amendments to 310 CMR 7.28, *NO_x Allowance Trading Program*, accompanied by a Technical Support Document.

The purpose of 310 CMR 7.32 and amendments to 310 CMR 7.28 is to meet requirements of the federal Clean Air Interstate Rule (federal CAIR) promulgated by the U.S. Environmental Protection Agency (EPA) on May 12, 2005. The federal CAIR requires states in the Eastern U.S. to reduce emissions that significantly contribute to fine particles (PM_{2.5}) and ground-level ozone pollution in downwind states. Reduction of emissions will help Massachusetts and other states meet the National Ambient Air Quality Standards (NAAQS) for ozone and PM_{2.5}. EPA found that Massachusetts contributes only to downwind ozone problems (but not PM_{2.5} problems); therefore, Massachusetts is required by federal CAIR to reduce ozone season NO_x emissions only. MassDEP is doing so by promulgating Mass CAIR. MassDEP will submit the final regulations to EPA as part of the Massachusetts Ozone State Implementation Plan (SIP).

Mass CAIR caps ozone season NO_x emissions from large fossil-fuel-fired electricity and steam generators located in Massachusetts in order to address the interstate transport of NO_x from Massachusetts sources to other states. Mass CAIR replaces the existing NO_x Allowance Trading Program (310 CMR 7.28), which has capped ozone-season NO_x emissions from these sources since 2003, but at a less stringent cap.

MassDEP held three public hearings and solicited written testimony on the proposed regulation in accordance with Massachusetts General Laws (MGL) Chapter 30A. On January 8, 2007, MassDEP published notice of the public hearings and public comment period on the proposed regulatory amendments in both the Springfield Republican and the Boston Globe, and notified interested parties via electronic mail of the public hearings and the public comment period on the proposed amendments. Public hearings were held on the dates and at the locations specified below and the public comment period closed on February 20, 2007.

Hearings Held: Thursday, February 8, 2007 in Boston, Massachusetts
Thursday, February 8, 2007 in Lakeville, Massachusetts
Friday, February 9, 2007 in Springfield, Massachusetts

This document summarizes and responds to comments that were received during the public comment period. MassDEP appreciates the input from those who testified at the public hearings and submitted written comments into the hearing docket. Those who provided comments are listed below.

Associated Industries of Massachusetts (AIM)
Bob Machaver
Dominion Energy New England, Inc.
General Electric Aviation, Lynn
Massachusetts Climate Action Network (MCAN)
Massachusetts Department of Energy Resources (DOER)
Massachusetts Municipal Wholesale Electric Company (MMWEC)
Millennium Power Partners, L.P.
Mirant Kendall, LLC
US Environmental Protection Agency (EPA)

¹ This document uses the following nomenclature conventions:

- the federal Clean Air Interstate Rule is referred to as the federal CAIR;
- the model rule established by the federal CAIR is referred to as the Model Rule;
- the proposed Massachusetts Clean Air Interstate Rule is referred to as Mass CAIR;
- units that meet MassDEP's existing NO_x Allowance Trading Program applicability criteria, but not the Model Rule applicability criteria, are referred to as non-Model Rule units.

II. COMMENTS AND RESPONSES

A. Applicability

1. Comment: The omission in the Proposed Rule of an exemption from the requirements of Mass CAIR for cogeneration EGUs with a design capacity between 15 MW and 25 MW, while allowing this exemption for cogeneration EGUs > 25 MW, is not reasonable or appropriate (Machaver). MassDEP should petition EPA to allow for a cogeneration exemption for non-Model Rule units (GE Lynn).

Response: Based on comments received from EPA, MassDEP believes it is not allowed to exempt non-Model Rule cogeneration units from the requirements of Mass CAIR. EPA submitted the following comments on the proposed Mass CAIR confirming MassDEP's understanding of this matter:

“The exemptions for cogeneration units and solid-waste incineration units apply to all units that would otherwise be covered by the CAIR model rule applicability provisions... The exemptions do not apply to units brought into the CAIR NO_x ozone season program from the Massachusetts NO_x SIP Call trading program because States that bring in NO_x SIP Call units into the CAIR program must bring in all such units and the NO_x SIP Call program lacked these exemptions.”

Furthermore, MassDEP does not support EPA's inclusion of a cogeneration exemption in the federal CAIR. Instead, MassDEP believes that cogeneration units should be rewarded for their efficiency through the allocation of allowances for both steam and electric output, which Mass CAIR does.

2. Comment: To support greenhouse gas efforts, it is suggested that the Proposed Rule allow existing non-Model Rule units that switch to a fuel that is > 50% non-fossil (i.e. a biofuel), or an EGU Unit > 25 MW that switches to 100% biofuel, to Opt-Out of the CAIR Program. (Machaver)

Response: Such an exemption is not permissible under the federal CAIR. States must adopt the Model Rule applicability criteria without any changes except for the incorporation (if desired) of that state's unaltered NO_x Budget Trading Program applicability criteria.

3. Comment: MassDEP should allow non-EGUs to Opt-Out of the CAIR program and accept a NO_x emission limit. (Machaver)

Response: The suggested opt-out of non-EGUs is not permitted by the federal CAIR. EPA's position is that states that wish to include non-Model Rule units in their CAIR programs must include all such sources and cannot allow individual non-Model Rule units to opt-out of Mass CAIR.

4. Comment: For non-Model Rule units, a Reasonably Achievable Control Technology (RACT) standard equivalent is preferable to the proposed allocation scheme under Mass CAIR. Units should have the option to determine whether these proposed reductions are cost effective through a RACT analysis. ICI boiler RACT will also be applicable to boilers in Mass CAIR; these two programs should be streamlined. NO_x limits equivalent to NO_x SIP call emission levels could be implemented for non-Model Rule units under a new category. (GE Lynn)

Response: The federal CAIR does not give states the flexibility to allow individual non-Model Rule units to opt out of the CAIR program. MassDEP believes that cap-and-trade programs generally provide more compliance flexibility than RACT regulations.

B. Budget Size

5. Comment: MassDEP received differing comments on how much the budget should be increased to account for the addition of non-Model Rule units.

- MassDEP should use the lowest allocation for the 2003-08 period to establish the budget for non-Model Rule units that will be added to the CAIR budget instead of the second lowest allocation to such units, as proposed by MassDEP. (EPA)
- Budget expansion should be more representative than 2nd lowest ozone season (GE Lynn)
- MassDEP should increase the size of the requested supplemental budget to accommodate non-Model Rule units. MassDEP should employ methods “more consistent with EPA approaches used to establish NO_x Budgets and Allocations under the federal CAIR Program.” (Machaver)

Response: MassDEP continues to believe that basing the budget increase on the second lowest ozone season allocation under the NO_x Allowance Trading Program (out of six years, 2003-2008) reasonably balances environmental protection with the needs of industry. Unit output varies considerably from year to year, and therefore MassDEP does not believe that it would be appropriate to base the state budget increase on either the lowest or highest ozone season allocation to non-Model Rule units. Therefore, as it proposed, MassDEP has included a 363-ton budget expansion (see comment #6 below) to account for inclusion of non-Model Rule units in Mass CAIR.

6. Comment: Mass CAIR is intended to cover all of the same facilities as the NO_x SIP Call trading program. The existing program includes both Kendall jets, but Mass CAIR only lists one jet. Jet#2 was in operation for 30 years, but temporarily removed in 2004 to make room for construction of a new substation. With substation construction complete, Mirant plans to re-install Jet#2. Therefore, Jet #2 should be included in list of facilities covered by Mass CAIR. (Mirant Kendall)

Response: MassDEP has recalculated the calculated budget increase including Kendall Jet #2. This increases the non-Model Rule unit budget expansion by 1 CAIR NO_x Ozone Season allowance to 363 CAIR NO_x Ozone Season allowances, and the total Mass CAIR budget to 7,914 CAIR NO_x Ozone Season allowances in phase I, and 6,656 CAIR NO_x Ozone Season allowances in phase II. Revised calculations for the CAIR budget increase are shown in Table 1, below.

Table 1. Calculated Mass CAIR budget increase to account for non-Model Rule units^{2,3,4,5}

| Plant ID (ORIS) | Plant Name | NOx Allowance Allocations | | | | | |
|--------------------|----------------------------------|---------------------------|---------------|---------------|----------------|---------------|---------------|
| | | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
| 1594 | Blackstone Street | 23 | 5.41 | 5.51 | 7.657 | 10.94 | 14.51 |
| 1631 | Doreen | 1 | 0.49 | 0.47 | 0.171 | 0.20 | 0.14 |
| 1586 | Framingham | 1 | 0.58 | 0.50 | 0.914 | 0.98 | 1.05 |
| 10029 | GE | 60 | 60.00 | 60.00 | 46.494 | 39.00 | 30.87 |
| 1595 | Kendal Square, Jets | NA | NA | NA | 1.633 | 1.60 | 1.63 |
| 54907 | MIT | 96 | 89.94 | 105.01 | 109.303 | 113.53 | 131.96 |
| 10823 | MWRA - Deer Island | 37 | 37 | 37 | 0.895 | 0.92 | 0.63 |
| 1588 | Mystic, Jet | NA | 0.15 | 0.12 | 0.136 | 0.13 | 0.14 |
| 1589 | New Boston, Jet | NA | 0.41 | 0.31 | 0.276 | 0.25 | 0.23 |
| 1678 | Peabody - Waters River, Unit 1 | 0 | 0 | 0 | 2.671 | 2.38 | 1.37 |
| 10176 | South Boston Combustion Turbines | 6 | 6 | 6 | 1.383 | 1.22 | 0.75 |
| 1613 | Somerset - Jet 11 | NA | 0.61 | 0.56 | 0.509 | 0.45 | 0.3 |
| 880023 | Trigen - Kneeland St. Station | 232 | 215.96 | 213.63 | 189.880 | 175.05 | 187.50 |
| 1642 | West Springfield, Jet | NA | 0.68 | 0.78 | 0.439 | 0.40 | 0.25 |
| 1643 | Woodland | 1 | 0.57 | 0.51 | 0.143 | 0.11 | 0.09 |
| MA TOTALS: | | 457.00 | 417.80 | 430.40 | 362.504 | 347.16 | 371.42 |

NA - data not readily available and not relevant to the determination of the Mass CAIR budget increase because 2003, 2004, and 2005 would not be the second lowest ozone season total allocation.

C. Allocation Approach

7. Comments: MassDEP received comments both for and against output-based allocation.

- Sources should not receive more allowances than they have the potential to emit. The current approach does not encourage fair competition, system reliability or benefit the consumer, and it will raise electricity prices as older sources must raise their bid price to the pool. Therefore, allocations should be capped at a unit's potential to emit. (MMWEC)

² Primarily due to calculation errors, eighteen facilities received fewer allowances for the 2004 to 2007 control periods of the NO_x Allowance Trading Program than they should have received. MassDEP addressed this by revising 310 CMR 7.28(6)(b)4. in November 2004 to allocate NO_x allowances from the Public Benefit Set-aside account to the eighteen facilities. Other units were over-allocated from 2004 to 2007 due to these errors. Therefore, MassDEP used the number of allowances that should have been allocated from 2004 through 2008 to determine the appropriate CAIR budget increase, not the number of allowances that were allocated in error from 2004 to 2007.

³ MBTA (South Boston Combustion Turbines; ORIS – 10176) is an unusual facility as it currently meets federal CAIR Model Rule applicability criteria, but did not during the years evaluated by EPA for establishing State budgets, since it first received payment for selling electricity to the grid in 2006.

⁴ 2003 Allocations listed in promulgated NO_x Allowance Trading Program (7.28) regulation, November 1999.

⁵ Unrounded allocations are listed for 2004 to 2008. As allowances are only issued in whole tons, unit-level allocations (shown above) are summed at the facility level and then rounded.

- MassDEP should cap the maximum allocation to new non-EGU Units as a multiple of potential emissions. (Machaver)
- MassDEP should continue to utilize output-based allocation, which rewards those producers who are at the forefront of efficient energy production. Continuing to allocate on the basis of output maintains administrative consistency, which should minimize disruption and regulatory expense for existing power producers (Millenium Power)
- New England is dangerously reliant on natural gas for power production. Output-based allocation discriminates in favor of natural gas power and discriminates against companies that have spent millions of dollars installing pollution upgrades. (AIM)
- Allocation methodology should employ fuel allocation factors and gross generation so as not to discriminate against specific technologies and the operation of pollution control equipment. The current proposal provides windfall profits to gas generators. (Dominion)

Response: MassDEP continues to believe that output-based allocation is an appropriate way to encourage clean efficient units, which have more energy efficient pollution controls, and does not believe that capping this incentive is appropriate.

8. Comment: MassDEP received comments in favor of, and in opposition to, the auctioning of allowances under Mass CAIR.

- MassDEP should auction CAIR NO_x Ozone Season allowances. Giving allowances away results in windfall profits. Furthermore, pollution is a burden on society that should not be free of charge. The auctioning of CAIR NO_x Ozone Season allowances could result in savings to consumers and businesses by generating funds to pay for energy efficiency projects, and will not affect electricity prices. MassDEP should reexamine its assertion that it does not have the legal authority to auction allowances. If MassDEP does not have the authority to do so, it should obtain that authority, particularly because the Governor has announced that the Commonwealth will auction CO₂ allowances under the Regional Greenhouse Gas Initiative (RGGI). (MCAN)
- MassDEP does not have the authority to auction allowances. (Dominion)

Response: There is no explicit authority in the Massachusetts Clean Air Act, Massachusetts General Laws (M.G.L.) c. 111, §§ 142A-O, or MassDEP's enabling statute, M.G.L. c. 111, § 21, that gives MassDEP the authority to administer the auction of allowances and receive money from the auction of allowances. M.G.L. c. 25A, §13 provides the Division of Energy Resources (DOER) with this authority, and DOER may administer the RGGI auction on behalf of the Commonwealth. MassDEP believes that the Commonwealth could use the same authority to auction CAIR NO_x Ozone Season allowances in the future. However, until MassDEP is able to further study the policy implications and issues associated with the implementation of an auction for allowances under Mass CAIR, it is not prepared to make such a significant departure from its NO_x Allowance Trading Program (310 CMR 7.28). MassDEP will continue to study this issue, and will engage stakeholders if, in the future, it considers revising Mass CAIR to provide for the auction of CAIR NO_x Ozone Season allowances.

D. Public Benefit Set-aside (PBSA)

9. Comment: The Department received comments requesting that the Department increase and decrease the size of the Public Benefit Set-aside.

- MassDEP should eliminate the PBSA program because the reduction in the NO_x budget in Mass CAIR is already a significant public benefit for the citizens of Massachusetts. In addition, there are other programs in place to fund and encourage energy efficiency projects (EEPs) and renewable energy projects (REPs), including the System Benefit Charge (SBC) program, Renewable Portfolio Standards (RPS), the ISO Forward Capacity Market payments, and the proposed Regional Greenhouse Gas Initiative (RGGI) auction proceeds. (Dominion)

- Though we would prefer to effect a more substantive management of the Public Benefit Set-aside regime, the DOER believes that an expansion of the PBSA allotment to 10% of 792 allowances will ensure a meaningful public component to a significantly reduced Massachusetts CAIR State Trading Budget. (DOER)
- MassDEP should not prorate or cap allocations under the PBSA. (DOER)

Response: In an effort to retain and increase incentives for energy efficiency and renewable energy projects, MassDEP is increasing the Public Benefit Set-aside from 5% of the state budget to 10% of the state budget. Therefore, the PBSA will be 791 CAIR NO_x Ozone Season allowances in phase I of Mass CAIR, and 666 CAIR NO_x Ozone Season allowances in phase II of Mass CAIR.

10. Comment: MassDEP should apply two performance criteria when allocating Public Benefit Set-aside allowances to proponents other than DOER when their projects use System Benefit Charge (SBC) funds:

1. Energy savings must exceed savings calculated for a SBC incentive OR
2. Applicants have designated accounts for either revolving loans to finance energy projects or separate accounts for projects in Massachusetts that will not receive SBC funding and the applicants must show that allowance revenues go into the revolving loan fund OR that the separate account is for self-funded energy projects

If a proponent can demonstrate that it meets these criteria, the proponent could then claim all allowances associated with the SBC energy efficiency project. However, Program Administrators and energy service companies who participate in SBC-funded energy efficiency projects should not be eligible for PBSA allowances.

DOER should claim NO_x allowances earned from projects using rate-payer funds. DOER is the primary or default custodian of the Commonwealth's PBSAs. MassDEP should reinforce the DOER's role as the primary actor in the accumulation and expenditure of PBSA allowances. DOER is the "de facto aggregator" for other MA state or municipal entities when SBC funds comprise a portion of the project.

Response: MassDEP believes that the current PBSA program works well and provides incentives to help promote energy efficiency and renewable energy projects. MassDEP does not believe it is necessary to make significant revisions to the current program at this time, except to increase the PBSA from 5% to 10% of the Mass CAIR NO_x budget to even further promote energy efficiency and renewable energy. However, due to the importance of the PBSA program, MassDEP will work with DOER and other stakeholders over the coming year to further review the PBSA program, and may propose program revisions based on this review.

E. New Unit Set-Aside

11. Comment: Several commenters requested that MassDEP constrain the New Unit Set-aside.

- Due to the small size of the overall CAIR Budget, and the accelerated basis on which the Proposed Rule transfers New Units into the "Existing" source pool, it is suggested that for any year that the New Unit Set-aside is not fully subscribed, the unallocated allowances be transferred to the Existing Source Allocation Pool rather than being banked. These extra New Unit Set-aside Allowances could then either immediately be distributed among the existing sources on a pro-rated basis, or added to the Existing Unit Allowance Pool for the next allocation cycle. (Machaver)
- To help existing generation units, the New Unit Set-aside should decrease to 3% of the State budget when the State budget decreases in Phase II. (Dominion)

Response: MassDEP believes it is better to retain the banking provisions of the New Unit Set-aside as proposed. While the existing unit pool has decreased significantly under Mass CAIR, the New Unit Set-aside also has decreased. Banking unallocated CAIR NO_x Ozone Season allowances in the New Unit Set-aside for use in future years would do more to encourage new efficient units.

Under the existing NO_x Allowance Trading Program, the New Unit Set-aside is 5% of the total budget, or 643 tons. This Set-aside was oversubscribed in 2003 and 2005, and almost fully subscribed in 2004. However, the New Unit Set-aside will fall to 396 tons during Phase I of Mass CAIR (2009-2014) and 333 tons during Phase II of Mass CAIR (2015 and thereafter). Similar to the existing program, if, after allocation in a given year, banked CAIR NO_x Ozone Season allowances in a set-aside equal 10% of the total State budget or greater, then CAIR NO_x Ozone Season allowances in that set-aside in excess of 5% of the State budget will be allocated to existing units.

12. Comment: The scheme proposed in the Rule should be refined to specify that: if a New Unit has not submitted to EPA electronic data for second calendar quarter NO_x emissions, but has commenced operation by July 1, it be issued an allowance allocation equal to some proportion of its potential to emit (PTE), such as 33% or 50%. This refinement would avoid a sharp bifurcation in the allocation scheme at July 1, where a New Unit gets allowances corresponding to its full PTE if the monitoring system is certified by June 29, but gets no allowances if its monitoring system is certified on or after July 1. (Machaver)

Response: EPA's Model Rule requires new units to purchase CAIR NO_x Ozone Season allowances on the market in their first ozone season of operation. However, MassDEP believes new units should receive CAIR NO_x Ozone Season allowances in their first year of operation, but should not receive CAIR NO_x Ozone Season allowances in their first year of operation if they do not have a compliance obligation.

Note that facilities are not obligated to retire CAIR Ozone Season NO_x allowances for emissions prior to monitor certification, or the certification deadline, whichever comes first. Therefore, units that do not certify monitors before the close of the second quarter could avoid accruing a compliance obligation because under Mass CAIR and the Model Rule, a new unit may delay the certification of emissions monitors and reporting of NO_x emissions for up to 90 operating days, or 180 calendar days, after first fire, whichever comes first.

Given this flexibility, MassDEP believes that most new units should be able to either submit an emissions report for second quarter emissions or avoid establishing a compliance obligation in their first year of operation. Units that expect to have a compliance obligation in their first year of operation should plan on either certifying their emission monitors before the close of the 2nd quarter or delaying certification of their emission monitors until after the ozone season.

Therefore, MassDEP is finalizing the methodology it proposed for new units in their first year of operation.

13. Comment: The New Unit Set-Aside allowance submission deadline is July 31, and the Public Benefit Set-Aside allowance application deadline is August 1. However, since up to 2% of unallocated allowances from the Public Benefit Set Aside (PBSA) can be transferred to the New Unit Set Aside if new units request more allowances than are available, and up to 2% of unallocated allowances from the New Unit Set-Aside can be transferred to the PBSA if oversubscribed, to meet the timing requirements for allocating the New Unit Set-aside, the submission deadline in Section 7.32(5)(b) for allocations from both set-asides should be July 31 of the year for which the allowances are allocated. (EPA)

Response: MassDEP established the PBSA application deadline based on when System Benefit Charge (SBC) data that is needed for the applications is available. Electric distribution companies submit reports to the Department of Energy Resources (DOER) and the Department of Telecommunications and Energy (DTE) that document SBC cost-effectiveness and the extent to which SBC funds support the competitive market for energy efficient products and services. Data from these reports are used to calculate allowances earned and to avoid

double counting. However, these reports are not available in time for MassDEP to complete a review of the PBSA applications before July 31. For this reason, MassDEP is retaining the proposed August 1 PBSA application deadline, and will submit PBSA CAIR NO_x Ozone Season allowance allocations to EPA by October 31.

Under the NO_x Allowance Trading Program, the Public Benefit Set-aside was fully subscribed in 2005 and 2006. In 2006, proponents received 758 allowances. MassDEP believes that the demand for PBSA allowances will continue to grow, and therefore does not expect there to be unallocated PBSA allowances available for transfer to the New Unit Set-aside, even after the expansion of the PBSA to 791 CAIR NO_x Ozone Season allowances. Therefore, to resolve the timing issues noted by EPA, and because it likely would have no practical implications, MassDEP is amending 310 CMR 7.32 so that unallocated PBSA allowances cannot be transferred to the New Unit Set-aside. However, MassDEP is retaining the provision that allows for the transfer of unallocated New Unit Set-aside allowances to the PBSA.

F. Penalty Provisions

14. Comment: In 310 CMR 7.32(1)(f)4., MassDEP did not adopt the Model Rule penalty provision making each ton of excess emissions and each day of the control period a separate violation of 310 CMR 7.32(1), the Clean Air Act, and applicable State law, when a facility is found to have insufficient allowances to cover emissions during the ozone season. Massachusetts should have legal authority to impose the discretionary penalties provided for by the CAA. Even if Massachusetts does not intend to exercise discretion to seek such penalties, the provision should be included in the Massachusetts CAIR rule. (EPA)

Response: MassDEP agrees to include the model rule provision. However, there are requirements in the penalty statute that MassDEP must consider when enforcing EPA's model rule language. MassDEP will amend the rule as follows (additions appear in *italics*, deletions appear in ~~strike-through~~).

4. Excess emissions requirements. If a CAIR NO_x Ozone Season source emits nitrogen oxides during any control period in excess of the CAIR NO_x Ozone Season emissions limitation, then:
 - a. ~~The~~ owners and operators of the source and each CAIR NO_x Ozone Season unit at the source shall surrender the CAIR NO_x Ozone Season allowances required for deduction under 310 CMR 7.32(6)(e)4.a. and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law;*;* and
 - b. *Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 310 CMR 7.32(1), the Clean Air Act, and applicable State law.*

G. Monitoring and Recordkeeping

15. Comment: The term output monitoring system should be defined in 310 CMR 7.32(1)(b). (EPA)

Response: Possible output monitoring systems are numerous, particularly for monitoring steam. The Department believes it is appropriate to allow facilities to propose any output monitoring approach, which the Department will then review as part of the CAIR permit application, rather than restricting the possible output monitoring approaches in a definition.

16. Comment: As proposed, 310 CMR 7.32(9) does not specify methodologies or protocols for assessing the accuracy of the output monitoring components and systems. This would give operators considerable discretion in making accuracy determinations and could lead to inconsistent implementation of the output monitoring requirements. MassDEP should specify what methodologies or protocols facility operators must use to assess accuracy, and require that operators submit these assessments to MassDEP for approval.

In addition, MassDEP should require operators to develop site-specific energy output quality-assurance/quality-control plans (similar to quality-assurance/quality-control plans under 40 CFR part 75) to be kept on-site in a format suitable for inspection and audit. Each plan would explain how the energy output is determined, how the data are quality-assured, and what corrective actions are taken to address equipment failures and malfunctions. (See 40 CFR part 75, appendix B, section 1.) (EPA)

Response: MassDEP believes the Mass CAIR program already addresses EPA's concerns. As part of the review of CAIR permit applications, MassDEP and facilities must come to an agreement about the appropriate method to measure output including quality assurance (QA) procedures (see 310 CMR 7.32(3)(c)4.a.iii.). These methods will be included in the CAIR permit. As a practical matter, a great majority of these facilities are reporting to ISO New England using electricity billing meters, and must therefore follow ISO New England Operating Procedure #18, Metering and Telemetering Criteria.⁶ While EPA exempts billing meters from QA, MassDEP requires all facilities to submit QA procedures for both billing and non-billing meters in their CAIR permit applications, rather than merely keeping them on-site for inspection or audit. The regulation in 310 CMR 7.32(9)(b)2. specifies data reporting procedures in the case of equipment failures and malfunctions, requiring any facility-specific approach to be approved by MassDEP, not simply listed in a QA plan. Therefore, MassDEP believes that its QA requirements for output metering are already more stringent than the approach EPA is recommending.

17. Comment: It might be useful to add a phrase at the end of 310 CMR 7.32(8)(a)4.b. clarifying that emissions only need be accounted for "following monitoring system certification, or after monitoring system certification deadlines have expired." Such a statement would help to clarify that under Mass CAIR, NO_x Emission Reporting does not begin immediately after the commencement of commercial operation, as it did under 310 CMR 7.28. The timing of initial NO_x emission reporting under 310 CMR 7.28 was a source of significant confusion, and it would seem worthwhile to make very explicit the time at which NO_x reporting is first required under CAIR. (Machaver)

Response: As stated in 310 CMR 7.32(8)(a)2., NO_x emission reporting does not necessarily need to begin immediately after a unit commences commercial operation. While MassDEP is receptive to suggestions on how to improve the clarity of its regulations, EPA has advised states not to deviate from the Model Rule language. Therefore, MassDEP will retain EPA's Model Rule language in section 310 CMR 7.32(8)(a)4.b.

18. Comment: The 310 CMR 7.32(8)(b)5. provisions should indicate that a Low Mass Emitter (LME) unit that was previously certified under 40 CFR 75 and 310 CMR 7.28 does not have to be "initially certified" again under CAIR. Such a provision would provide LME units the same exemption from initial certification as granted CEMS (see 7.32(8)(b)1). (Machaver)

Response: While MassDEP is receptive to suggestions on how to improve the clarity of its regulations, EPA has advised states not to deviate from the Model Rule language. Therefore, MassDEP will retain EPA's Model Rule language in section 310 CMR 7.32(8)(b)5. Also, note that 310 CMR 7.32(8)(b)1.b. does exempt LMEs from initially certifying already-certified 40 CFR Part 75 Appendix D fuel flow monitoring systems.

19. Comment: The criteria specified in 7.32(8)(e)4.a. and 4.b. intended to differentiate units required to report in all quarters vs. units only required to reporting in ozone season quarters is confusing. The language in 310 CMR 7.32(8)(e)4.a. specifies that if a unit is subject to "a CAIR NO_x emissions limitation or monitors NO_x emissions using CEMS", then Reporting must be performed every quarter in the year. Since all units in 310 CMR 7.32 would be subject to a "CAIR NO_x emissions limitation", this provision seems to imply all units in the CAIR program must report annually.

⁶ http://www.iso-ne.com/rules_proceeds/operating/isone/op18/index.html

Then, in 310 CMR 7.32(8)(e)4.b., it is indicated that if a unit is not subject to a CAIR NO_x limitation and does not monitor NO_x using a CEMS, then reporting is only required during the ozone season. However, all units in 310 CMR 7.32 are subject to a CAIR NO_x limitations, so it would seem no unit could qualify for ozone season only reporting under this specification.

In practice, it is understood that LME sources and Appendix E sources would only be required to report CAIR NO_x emissions during the ozone season, but it is difficult to infer this interpretation from the existing provisions. It is suggested that in 310 CMR 7.32(8)(e)4.a, the language be revised to specify that if a unit uses a CEMS and is subject to a CAIR NO_x limitation then reporting is quarterly (i.e. change the word “or” to “and”). Additionally, in 310 CMR 7.32(8)(e)4.b., the language might be revised to specify that a Unit which is subject to a CAIR NO_x limitation, but which does not use a CEMS, may report CAIR NO_x emissions in the ozone season only; or something to that effect. (Machaver)

Response: “CAIR NO_x emissions limitation” refers to being subject to the annual CAIR NO_x program. For clarity, MassDEP has replaced the term “CAIR NO_x emissions limitation” with “CAIR NO_x Annual Trading Program.”

20. Comment: In 310 CMR 7.32(9)(a), the proposed Rule indicates that certification information concerning the energy output monitoring system may be combined with the monitoring system certification application submittal required under 310 CMR 7.32(8)(b)4.c.ii. However, based on the exemption provided in 310 CMR 7.32(8)(b)1., monitoring system certification application submittals will not be required for most existing CAIR sources. It is unclear if this same exemption extends to the energy output certification submittal; if not, then the Rule should specify a submittal deadline for the energy output initial certification submittal, for those situations in which no monitoring system initial certification application is required. (Machaver)

Response: Unlike the extensive certification documentation for monitoring systems, the energy output certification consists of a signed certification statement and is not an onerous requirement. Therefore, in the final rule, MassDEP is requiring that energy output certification submittals be submitted in accordance with the compliance deadlines established in 310 CMR 7.32(8)(a)2. These amendments appear below (additions appear in italics, deletions appear in strike-through).

(a) Initial certification. The CAIR designated representative shall submit a certification stating that the output monitoring system meets one of the following requirements. *This certification shall be submitted in accordance with the compliance deadlines established in 310 CMR 7.32(8)(a)2.* ~~This certification may be submitted with the certification application required under 310 CMR 7.32(8)(b)4.c.ii.~~

21. Comment: Consistent with the 40 CFR 75 Appendix D 2.1.6(b) provisions, it is requested that the exemption from periodic calibration testing provided for orifice plates be extended to nozzle and venturi type meters, so long as it is demonstrated that the “primary element” of the installed meter conforms with applicable design standards (i.e. are initially certified). This exemption, which is provided under 40 CFR 75 Appendix D 2.1.6(b), is based on the absence of moving parts in the meter (primary element) design, a feature which is shared by all three of these meter types. (Machaver)

Response: MassDEP concurs, and has amended 310 CMR 7.32(9)(b)1. as follows (new text appears in italics):

1. Certain types of equipment such as potential transformers, current transformers, *nozzle and venturi type meters*, and the primary element of an orifice plate only require an initial certification of calibration and do not require periodic recalibration unless the equipment is physically changed.

22. Comment: Mass CAIR requires that records related to the determination of energy output be retained for 10 years. This duration is twice as long as specified by the Operating Permit Program. Maintaining all of these

hardcopy recordkeeping documents/materials for 10 years represents a significant logistical and space burden. (Machaver)

Response: MassDEP agrees with the commenter and has shortened the energy output record retention time from 10 years to 5 years. Five years is consistent with other record retention requirements (including emissions monitoring data) imposed by Mass CAIR.

23. Comment: The proposed Rule does not appear to specify when the reporting of energy output must be initiated for New Units. Since partial ozone season data is not used in the process of determining NO_x Allocations, it would seem a New Unit should not be required to initiate energy output reporting until after its first full ozone season of operation. In any case, it would be useful to specify when energy output reporting must be initiated for New Units. (Machaver)

Response: 310 CMR 7.32 (9)(c)3. states that:

“The CAIR designated representative for a CAIR NO_x Ozone Season unit shall submit to the Department ozone season output reports on or before December 1, 2009 and December 1 of each year thereafter, for the immediately preceding ozone season.”

Therefore, output must be reported for each ozone season beginning with the first ozone season after a unit commences commercial operation, even if that unit does not operate for the entire ozone season. Though an incomplete ozone season’s output data would not be used for allocation purposes, MassDEP may use the data for program evaluation and planning purposes, and its submittal will help new units establish reporting procedures for future years.

H. Allocations

In response to comments (see Comments 6 and 9), MassDEP has increased the state budget for phase I and II of Mass CAIR, and has increased the PBSA. Accordingly, MassDEP has recalculated allocations for 2009 through 2011. New allocations can be found in Table 2 (below), and calculations can be found in Appendix A of this document. MassDEP will report these allocations to EPA by April 30, 2007.

Table 2. Annual Mass CAIR Allowance Allocations 2009-2011.

| ORIS Code | Unit Name | NOx Allowances |
|-----------|----------------------------------|----------------|
| 55211 | ANP Bellingham Energy Company | 368 |
| 55212 | ANP Blackstone Energy Company | 398 |
| 10307 | Bellingham Cogen | 204 |
| 55041 | Berkshire Power | 192 |
| 1594 | Blackstone Street | 10 |
| 1619 | Brayton Point | 1,141 |
| 1599 | Canal Station | 612 |
| 1682 | Cleary Flood | 9 |
| 52026 | Dartmouth Power | 32 |
| 10823 | Deer Island Treatment | 3 |
| 55026 | Dighton | 102 |
| 1631 | Doreen | 0 |
| 55317 | Fore River | 552 |
| 1586 | Framingham Station | 0 |
| 10029 | GE Aircraft Engines Lynn | 13 |
| 1595 | Kendall Square | 267 |
| 880023 | Kneeland Station | 92 |
| 10802 | Lowell Cogeneration | 0 |
| 54586 | Lowell Power | 0 |
| 10726 | Masspower | 140 |
| 1592 | Medway Station | 0 |
| 54805 | Milford Power | 59 |
| 55079 | Millennium Power Partners | 293 |
| 54907 | MIT Central Utility | 79 |
| 1606 | Mount Tom | 129 |
| 1588 | Mystic | 1,327 |
| 1589 | New Boston | 75 |
| 10522 | Pepperell | 0 |
| 50002 | Pittsfield Generating | 47 |
| 1660 | Potter | 3 |
| 1626 | Salem Harbor | 370 |
| 1613 | Somerset | 121 |
| 10176 | South Boston Combustion Turbines | 0 |
| 6081 | Stony Brook | 59 |
| 1678 | Waters River | 6 |
| 1642 | West Springfield | 24 |
| 1643 | Woodland | 0 |
| | | 6,727 |

I. Technical Corrections

24. Comment: Massachusetts should revise 310 CMR 7.32(1)(a)2. to clarify that each source will be allocated allowances ‘as described in 310 CMR 7.32(5) with the total allocations to such sources equal to the total Massachusetts NO_x Ozone Season Trading Program budget in tons.’ (EPA)

Response: MassDEP agrees that the paragraph was incorrect as originally written. Therefore, MassDEP has corrected and simplified the paragraph as follows:

2. The Department will allocate NO_x Ozone Season allowances ~~to each CAIR NO_x Ozone Season source with a CAIR permit issued in accordance with 310 CMR 7.32(3)~~ for each control period as described in 310 CMR 7.32(5). ~~equal to the total Massachusetts NO_x Ozone Season Trading Program budget in tons.~~

25. Comment: Massachusetts should add the following definitions to (b):

‘Clean Air Act or CAA means the Clean Air Act, 42 U.S.C. 7401, et seq.’

Electric generating unit, which is a term used under (d) (Applicability), should be defined by repeating or referencing the definition given in 310 CMR 7.28 (NO_x Trading Program). That definition includes the term ‘combustion unit,’ which also should be defined.

Non-affected unit, a term used in 310 CMR 7.32(3)(c), should be defined.

‘Potential electrical output capacity means 33 percent of a unit’s maximum design heat input, divided by 3,413 Btu/kWh, divided by 1,000 kWh/MWh, and multiplied by 8,760 hr/yr.’ (This term is used in 310 CMR 7.32(1)(d)2.a.ii.)

(EPA)

Response: MassDEP generally agrees with EPA’s comments, and has added definitions for “Clean Air Act,” and “Potential electrical output capacity.” MassDEP has also amended the text of 310 CMR 7.32(1)(d)1.a.ii. to address EPA’s concerns. This includes the deletion of the term “electric generating unit.” (additions appear in italics, deletions are crossed-out)

ii. For units that are not covered by 310 CMR 7.32(1)(d)1.a.i.:

- (i) Any fossil-fuel-powered boiler, combustion turbine or indirect heat exchanger that emits NO_x to a stack and has a maximum design heat input of 250 MMBtu/Hour or more, or a fossil-fuel-powered ~~electric generating unit~~ unit serving a generator of 15 MW nameplate capacity or greater, which provides electricity for sale or use ~~with a nameplate capacity of 15 MW or more;~~; or,*
- (ii) Any unit which has opted into 310 CMR 7.28, before January 1, 2009, when the Department approves an opt in application under 310 CMR 7.28(4)(c); or,*
- (iii) Any unit the Department includes in 310 CMR 7.28 pursuant to 310 CMR 7.28(4)(d) before January 1, 2009.*

“Fossil-fuel-powered combustion unit” has been condensed to “Fossil-fuel-powered unit” to avoid creating a redundancy of terms. This is possible because combustion is included in “fossil-fuel-powered,” which is defined as follows:

“Fossil-fuel-powered means the combustion of fossil fuel...”

MassDEP has replaced the term “non-affected unit” with “non-CAIR unit.” The new term is defined as follows:

Non-CAIR unit means a unit that is not subject to the CAIR NO_x Ozone Season Trading Program under 310 CMR 7.32(1)(d).

26. Comment: Massachusetts should add the following language from the EPA CAIR NO_x ozone season trading rule to the definition of Commence commercial operation:

‘3. Notwithstanding subdivisions 1 and 2 of this definition, for a unit not serving a generator producing electricity for sale, the unit's date of commencement of operation shall also be the unit's date of commencement of commercial operation.’

This language addresses the fact that monitoring-system certification deadlines are based on commencement of commercial operation. As non-EGUs may not generate electricity, they may never meet the definition of commencing commercial operation without this additional language. (EPA, Machaver)

Response: MassDEP concurs and has changed 310 CMR 7.32 accordingly.

27. Comment: Massachusetts should add the following language from the EPA CAIR NO_x ozone season trading rule to the definition of Commence operation:

“2. Notwithstanding subdivision 1 of this definition, and solely for purposes of 310 CMR 7.32(8), for a unit that is not a CAIR NO_x Ozone Season unit under [reference new applicability language covering non-Model rule units] on the later of November 15, 1990 or the date the unit commences operation as defined in subdivision 1 of this definition and that subsequently becomes such a CAIR NO_x Ozone Season unit, the unit's date for commencement of operation shall be the date on which the unit becomes a CAIR NO_x Ozone Season unit under [reference new applicability language covering non-Model rule units].

a. For a unit with a date of commencement of operation as defined in subdivision 2 of this definition and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), such date shall remain the date of commencement of operation of the unit, which shall continue to be treated as the same unit.

b. For a unit with a date of commencement of operation as defined in subdivision 2 of this definition and that is subsequently replaced by a unit at the same source (e.g., repowered), such date shall remain the replaced unit's date of commencement of operation, and the replacement unit shall be treated as a separate unit with a separate date for commencement of operation as defined in subdivision 1 or 2 of this definition as appropriate.”

To accommodate this language in the definition of ‘commence operation’ proposed by MassDEP, the subdivisions of the current definition should be renumbered as 1, 1.a., and 1.b. The added language will address situations where a non-EGU does not become subject to CAIR until a date after the unit commences operation. (EPA)

Response: MassDEP concurs and has changed 310 CMR 7.32 accordingly. MassDEP has incorporated references to its “new applicability language covering non-Model rule units,” which is “310 CMR 7.32(1)(d)1.a.ii. or b.ii.”

28. Comment: "Representative" has been deleted from the definitions. (DOER)

Response: Due to Mass CAIR’s employment of the term “CAIR designated representative,” the Department consolidated the term “representative” and “proponent” (both of which defined roles in the PBSA program under the NO_x Allowance Trading Program) into a single term – “proponent” under Mass CAIR.

29. Comment: MassDEP should remove “subpart HHHH of this part” from the definition of Monitoring system and replace this with the appropriate Massachusetts CAIR rule reference (i.e., 310 CMR 7.32(8)). (EPA)

Response: MassDEP concurs and has changed 310 CMR 7.32 accordingly.

30. Comment: Under the definition of Permitting authority, MassDEP should remove “in accordance with 310 CMR 7.32(3),” and refer instead to permitting authorities in all States that adopt the EPA-administered CAIR NO_x Ozone Season Trading Program. This will ensure that allowances allocated by all such permitting authorities are fungible, can be traded, and can be used for compliance with the allowance-holding requirement for any such State. (EPA)

Response: MassDEP concurs and has changed 310 CMR 7.32 accordingly.

31. Comment: The abbreviation for “standard cubic feet per hour” in 310 CMR 7.32(1)(c) should be “scfh.” (EPA)

Response: MassDEP concurs and has changed 310 CMR 7.32 accordingly.

32. Comment: MassDEP should make revisions to 310 CMR 7.32(1)(d) to correctly apply the exemptions for cogeneration units and for solid-waste incineration units in 310 CMR 7.32(1)(d)2.

First, the phrase “For units that are not covered by 310 CMR 7.32(1)(d)1.a.i.” should be added to the beginning of 310 CMR 7.32(1)(d)1.a.ii..

Second, “...under 310 CMR 7.32(1)(d)1.a. or 1.b.” in paragraphs (d)2.a.i., (d)2.b.i., and (d)2.b.ii. should be revised to read “... under 310 CMR 7.32(1)(d)1.a.i. or 1.b.i.”.

Third, “...under 310 CMR 7.32(1)(d)1.a.ii. or 1.b.ii.” in paragraph (d)2 should be revised to read “...under 310 CMR 7.32(1)(d)2.a.ii. or 2.b.iii.”.

The exemptions for cogeneration units and solid-waste incineration units apply to all units that would otherwise be covered by the CAIR model rule applicability provisions. The first revision creates two separate categories of CAIR units. The exemptions do not apply to units brought into the CAIR NO_x ozone season program from the Massachusetts NO_x SIP Call trading program because States that bring in NO_x SIP Call units into the CAIR program must bring in all such units and the NO_x SIP Call program lacked these exemptions. The second revision limits the exemptions to the first category of CAIR units (i.e., those otherwise covered by the CAIR model rule applicability provisions). (EPA)

Response: MassDEP concurs and has changed 310 CMR 7.32 accordingly.

33. Comment: The Proposed Rule provisions that specify changed conditions that result in an existing non-CAIR Unit becoming subject to CAIR are confusing in 310 CMR 7.32(1)(d)1.b. It would be helpful if the language in these two provisions (b.i and b.ii) could be simplified. (Machaver)

Response: As a general matter, MassDEP is receptive to suggestions on how to improve the clarity of its regulations. However, EPA has advised states not to deviate from the Model Rule language. Therefore, MassDEP will retain EPA's Model Rule language in section 310 CMR 7.32(1)(d)1.b.

34. Comment: The reference to "7.32(2)5.a." in 310 CMR 7.32(2)(a)5.b. should be "7.32(2)(a)5.a.". (EPA)

Response: MassDEP concurs and has changed 310 CMR 7.32 accordingly.

35. Comment: MassDEP should include in 310 CMR 7.32(2)(f) the procedures for delegation of authority under the model rule, 40 CFR 96.315(c) through (e) (see 310 CMR 7.32(6)(b)2.e.). (EPA)

Response: MassDEP has reviewed the provisions of 310 CMR 7.32(2)(f) as proposed, as well as 40 CFR 96.315(c) through (e), and found them to be substantively identical. Therefore, MassDEP has finalized 310 CMR 7.32(2)(f) as proposed.

36. Comment: In 310 CMR 7.32(5)(c)1.b.ii., MassDEP should revise "Beginning in 2009, on or after July 31" to read "Beginning in 2009, on or before July 31." (EPA, Machaver)

Response: MassDEP concurs and has changed 310 CMR 7.32 accordingly.

37. Comment: In 310 CMR 7.32(5)(c)1.b.ii.(iii), the phrase "the number of CAIR NO_x Ozone Season allowances available" should be revised to read "the number of CAIR NO_x Ozone Season allowances available to new CAIR NO_x Ozone Season units." (EPA)

Response: MassDEP concurs and has changed 310 CMR 7.32 accordingly.

38. Comment: In 310 CMR 7.32(5)(c)3.b.v., the phrase "the number of CAIR NO_x Ozone Season allowances available" should be revised to read "the number of CAIR NO_x Ozone Season allowances available to existing CAIR NO_x Ozone Season units." (EPA)

Response: MassDEP concurs and has changed 310 CMR 7.32 accordingly.

39. Comment: In 310 CMR 7.32(5)(c)3.b.x., the reference "7.32(5)(c)2d." should read "7.32(5)(c)2.d." (EPA)

Response: MassDEP concurs and has changed 310 CMR 7.32 accordingly.

40. Comment: 310 CMR 7.32(6)(b)2.b.i.(iii) should read "Any representation, action, inaction, or submission by any alternate CAIR authorized account representative shall be deemed to be..." (EPA)

Response: MassDEP concurs and has changed 310 CMR 7.32 accordingly.

41. Comment: In 310 CMR 7.32(8)(a)2., the words in the first sentence “Except as provided in 310 CMR 7.32(8)(e)” need to be revised to read “Except as provided in 310 CMR 7.32(8)(a)5.” The clause beginning ‘Except as provided’ in the second sentence needs to be removed. (EPA)

Response: MassDEP concurs and has changed 310 CMR 7.32 accordingly.

42. Comment: It is suggested that references to the Annual CAIR program, which occur in several places in the Rule, be removed (see for example 310 CMR 7.32(8)(e)4). Since Massachusetts does not participate in the annual CAIR Program, no sources in Massachusetts will be subject to Annual CAIR NO_x or SO₂ limitations. (Machaver)

Response: As a general matter, MassDEP is receptive to suggestions on how to improve the clarity of its regulations. However, EPA has advised states not to deviate from the Model Rule language. Therefore, MassDEP will retain EPA’s Model Rule language in section 310 CMR 7.32(1)(d)1.b.

43. Comment: The system accuracy specification in 310 CMR 7.32(9)(a)2.a. is not consistent with the specification in 310 CMR 7.32(9)(b)1. The specification is “10.0 % of the reference value” in 310 CMR 7.32(9)(b)1. and is simply “10.0%” in 310 CMR 7.32(9)(a)2.a. (EPA)

Response: MassDEP concurs and has changed 310 CMR 7.32(9)(a)2.a. to read “10.0 % of the reference value.”